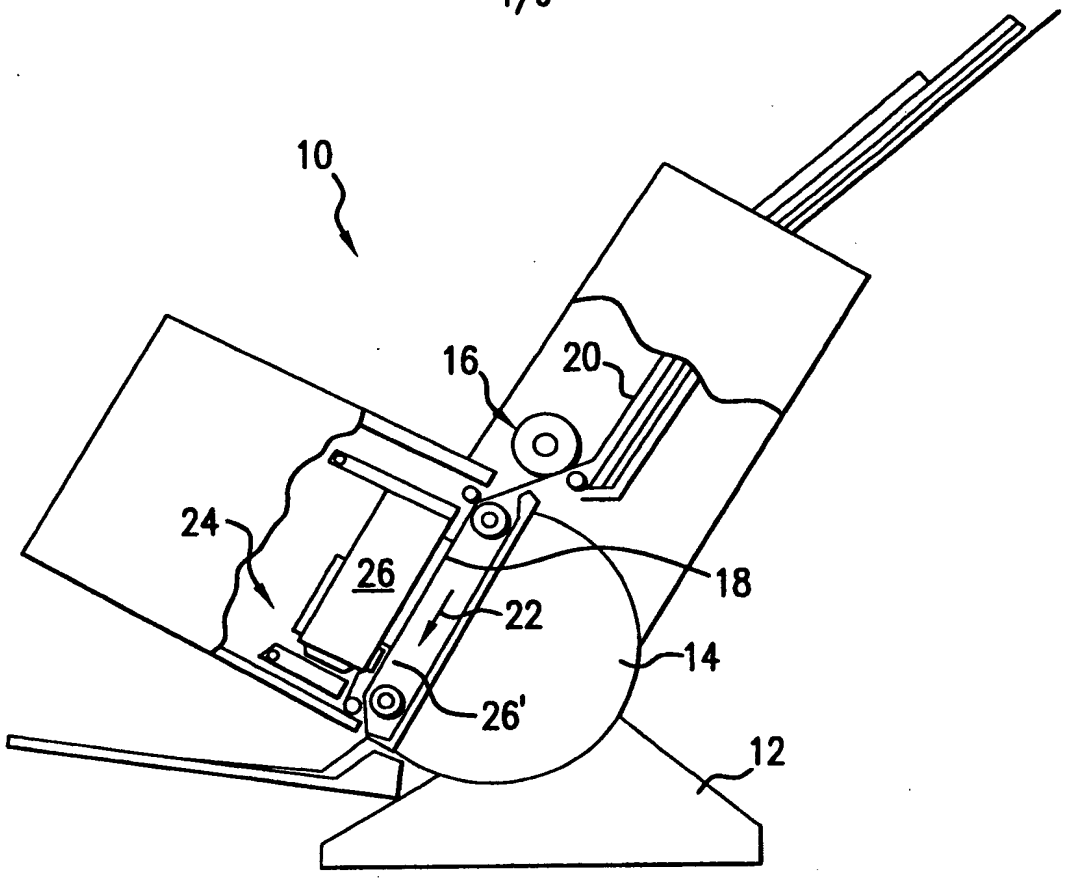
10
16
20
24
26
18
22
14
26'
12

FIG.1

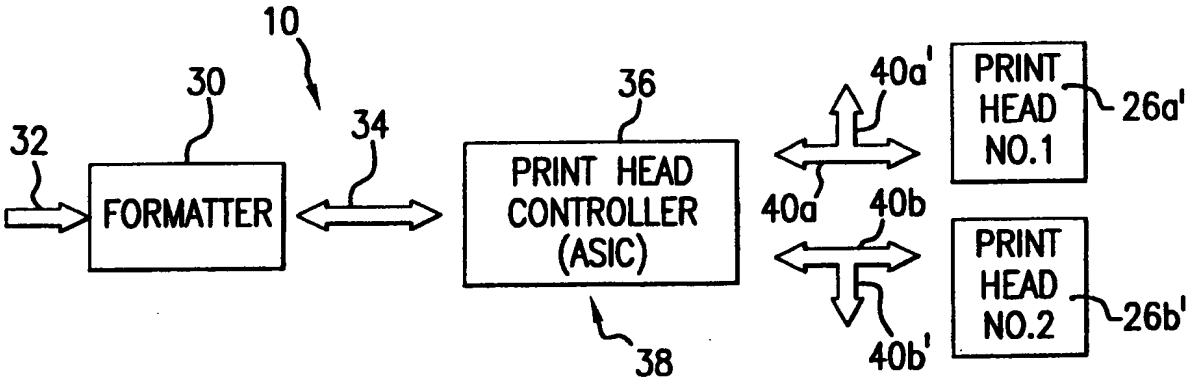
10
30
32
34
36
FORMATTER
PRINT HEAD CONTROLLER (ASIC)
38
40a'
40a
40b
40b'
PRINT HEAD NO.1
26a'
PRINT HEAD NO.2
26b'

FIG.2

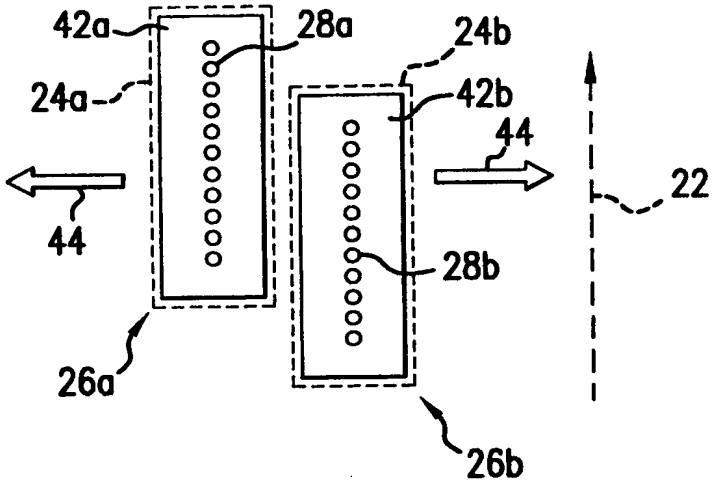
42a
28a
24b
24a
42b
44
22
44
28b
26a
26b

FIG.3

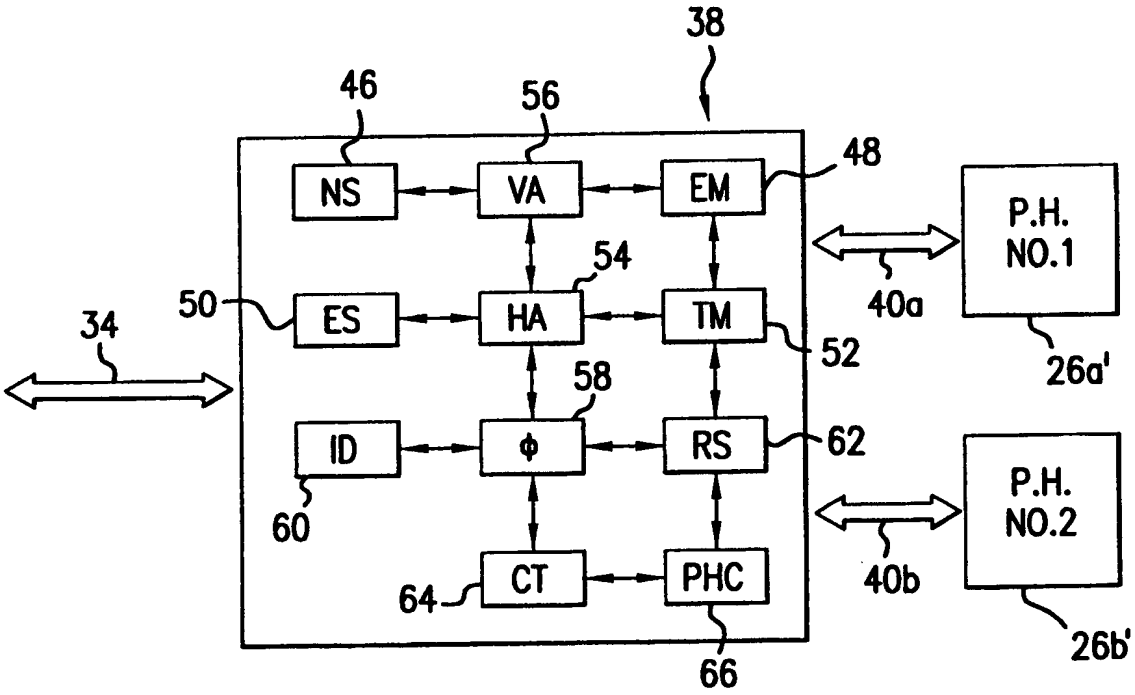
38
46
56
48
NS
VA
EM
P.H.
NO.1
54
50
ES
HA
TM
40a
34
52
26a'
58
ID
ϕ
RS
62
P.H.
NO.2
60
40b
CT
PHC
64
26b'
66

FIG.4

	SIGNAL	WIDTH	PURPOSE
68	TT	3	INFORMS PHC OF TYPE OF DATA TRANSFER
70	nStr	1	INFORMS PHC THAT DATA IS AVAILABLE TO STROBE IN
72	nAck	1	USED BY PHC TO ACKNOWLEDGE EACH SUCCESSIVE BYTE OF DATA
74	AD	8	BIDIRECTIONAL MULTIPLEXED ADDRESS/DATA BUS
76	IRQ	1	USED BY PHC TO INTERRUPT FORMATTER
78	Enc	2	PROVIDES PHC WITH ENCODER PULSES (SCHMIDT TRIGGER INPUTS)
80	DataReq1	1	USED BY PHC TO REQUEST PRINT DATA FOR PH# 1 (CAN BE PROGRAMMED TO REQUEST DATA FOR EITHER PH)
82	DataReq2	1	USED BY PHC TO REQUEST PRINT DATA FOR PH# 2

FIG.5

	TT[1:0]	DEFINITION
84	000	REGISTER ADDRESS
86	001	REGISTER WRITE DATA
88	01X	REGISTER READ
90	101	FIRST BYTE OF 32 BYTE BLOCK PH #1 PRINT DATA
92	100	BYTES 2-32 OF PH #1 PRINT DATA BLOCK
94	111	FIRST BYTE OF 32 BYTE BLOCK PH #2 PRINT DATA
96	110	BYTES 2-32 OF PH#2 PRINT DATA BLOCK

FIG.6

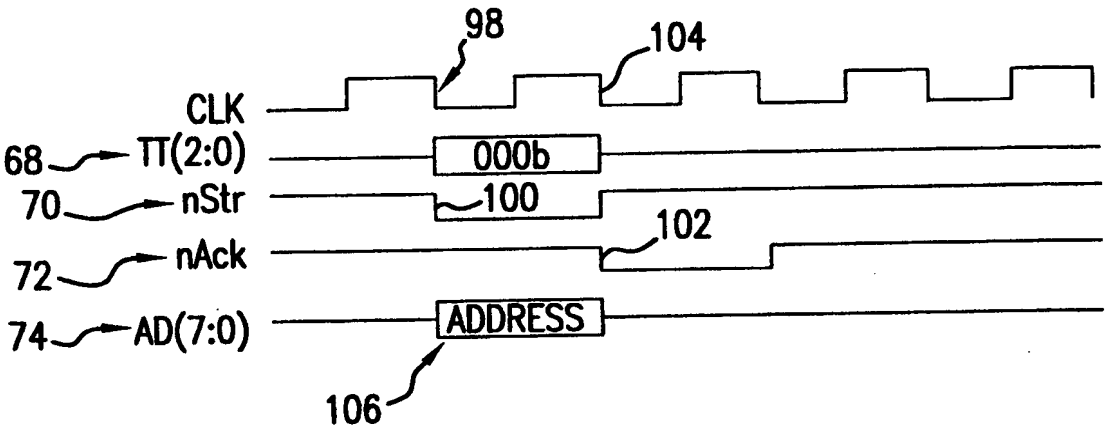
98
104
CLK
68
TT(2:0)
000b
70
nStr
100
102
72
nAck
74
AD(7:0)
ADDRESS
106

FIG.7

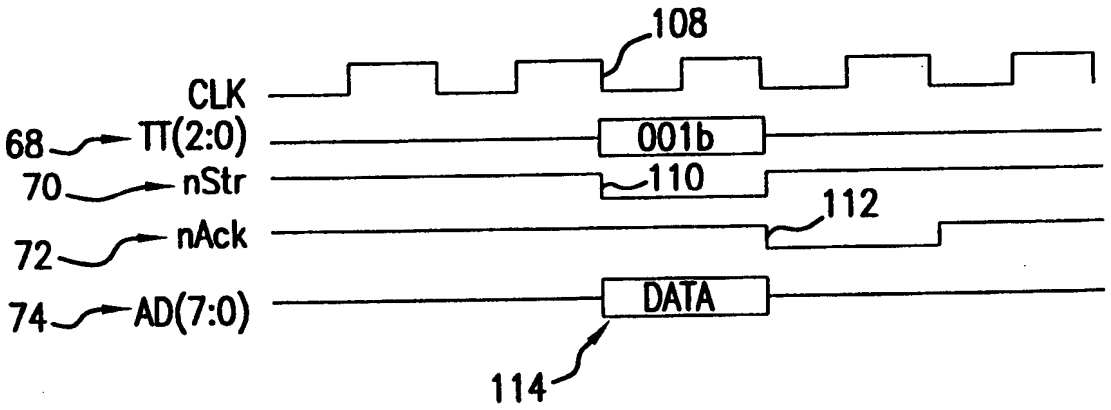
108
CLK
68
TT(2:0)
001b
70
nStr
110
112
72
nAck
74
AD(7:0)
DATA
114

FIG.8

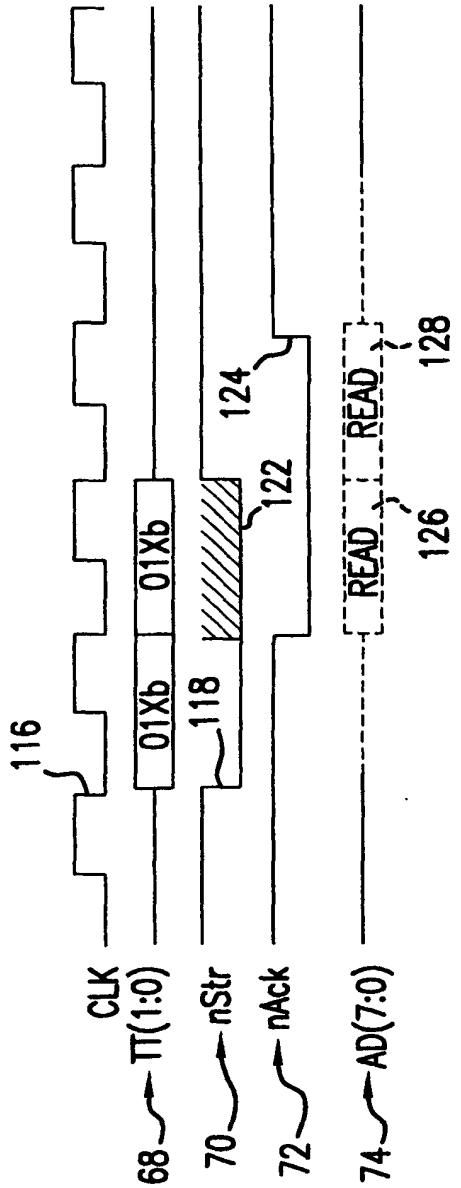
116
CLK
TT(1:0)
01Xb
01Xb
68
118
nStr
70
124
122
nAck
72
READ
READ
74
AD(7:0)
126
128

FIG.9

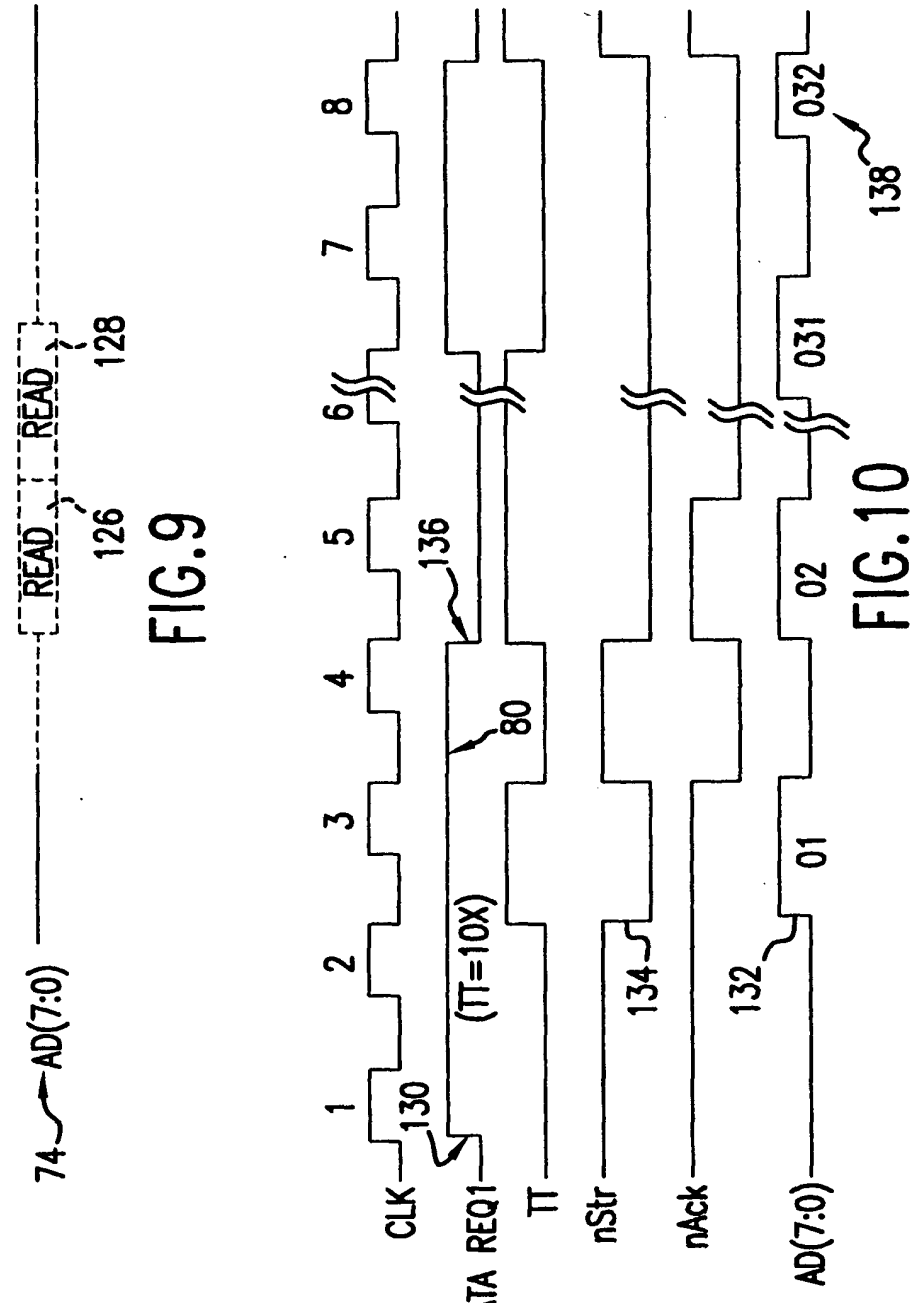
1
2
3
4
5
6
7
8
CLK
130
DATA REQ1
(TT=10X)
80
136
TT
nStr
134
nAck
132
AD(7:0)
01
02
031
032
138

FIG.10

BYTE →

NOZZLE ↓

0 1 2 3 4 5 6 7 8
1 9–16
2 17–24
3 25–32
4 1–8
5 9–16
6 17–24
7 25–32
8
30 17–24
31 25–32
32 33–40
33 41–48
34 49–56
35 57–64
510 497–504
511 505–512

FIG.11

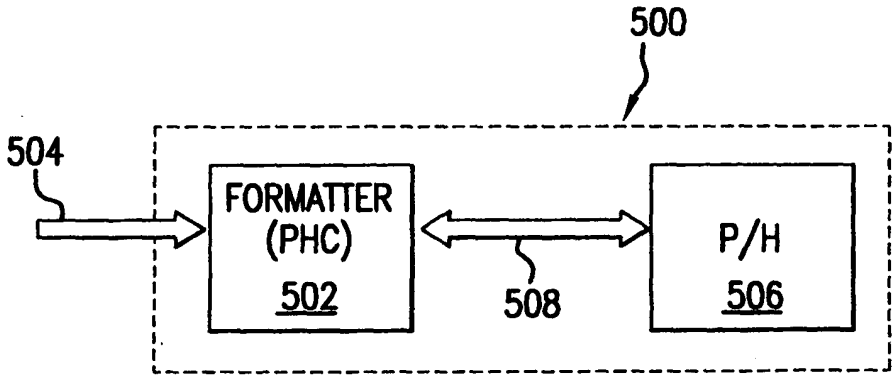

FIG.12
PRIOR ART